

QUANTERRA Q330

LOW-POWER HIGH RESOLUTION NETWORK-AWARE SEISMIC SYSTEM



General Description

The Q330 is an advanced 3 or 6 channel broad-band, high resolution seismic system incorporating Quanterra's proven IP networking technology into a very low-power field package. The Q330 uses Quanterra's exclusive patented (US Patent 4866442, Japan Patent 2787445, others pending) ultra-low-power delta-sigma 24-bit A/D with DSP, and includes 8Mb RAM, GPS receiver, power management, sensor command/control, and an advanced telemetry application for reliable data delivery.

Telemetry...



...and Local Recording



The Q330 supports real-time data telemetry to a central site or connection via hard-wire or radio (burst or continuous) to a local low-power recording system, or both simultaneously.

Low! Power

Incorporating the latest low-power technology, the Q330 achieves integrated capability with an average power requirement of <0.75 W, including recorder & GPS!

Internet-Ready Industry Standards

The telemetry protocols uses industry standard stateless IP communications, enabling the use of off-the-shelf IP equipment and service providers. Serial IP and Ethernet 10BaseT are built-in.

Comprehensive Sensor Control

The Q330 is a seismological instrument, not a digitizer alone. Sensor control interface, including calibration, and sensor identification-tag support is built in.

Streamlined Remote Administration

The Q330 is designed for simple network maintenance and administration, before, during, and after deployment. Internet security is built-in.

Specifications

Specification	Description
Channels	3 or 6-channel
Dynamic Range	132-135 dB wideband RMS typical. Typical band-limited 136 dB
Format	32-bit integer, Level 2 compressed 1-second packets
Input Range	40V P-P at gain=1
Gain	Selectable per channel: 1,30
Filtering	Linear or Minimum Phase FIR.
Sample Rate	200, 100, 50, 40, 20, 10, 1 Other rates available.
Time Base	Precision TCXO, locked to GPS. No adjustment.
DSP/CPU	ADSP-2189M
Telemetry	Full Duplex, efficient positive acknowledge with error control. UDP/IP over serial and Ethernet. Burst or continuous. Operates with major application software.
Temperature	Fully specified -20 to +50C Operative -40 to +70C
Sensor Control	Calibrate step, sine, or random. Recenter, on-command
Operational Data	Temp, DC voltage, GPS status, Sensor boom position (6 chan)
Memory	8Mb RAM standard
Network	IEEE 802 10Base-T Ethernet UDP/IP Protocol Stack
Serial Ports	2 serial telemetry and 1 console ports up to 115kbaud.
Wireless	IrDA interface supported.
Power	<0.6 W avg. 12VDC 3-channel <0.8 W avg. 12VDC 6-channel
Physical	Sealed, Aluminum, 14 X 4 X 6 in., 8 lbs., Rubber endcaps, Externally visible status and fault indicators.

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PRELIMINARY SPECIFICATIONS, SUBJECT TO CHANGE

Rev K.